

IN THE CLAIMS:

1. (original) A method of operating a wireless transmitter to wirelessly transmit a data packet on a variable rate channel to a receiver, the method comprising:

transmitting a first transmission block portion and a second transmission block portion to the receiver in a first transmission at a first data transmission rate; and

5 when the receiver does not successfully decode the first transmission in a first decoding, transmitting a second transmission to the receiver at a second data transmission rate different from the first data transmission rate, wherein the second transmission includes the first transmission block portion.

10 2. (original) The method of claim 1, further comprising, when the receiver does not successfully decode a combination of the first transmission and the second transmission in a second decoding, transmitting a third transmission to the receiver at the second data transmission rate, wherein the third transmission includes the second transmission block portion.

15 3. (original) The method of claim 2, further comprising, when the receiver does not successfully decode a combination of the first transmission, the second transmission, and the third transmission in a third decoding, transmitting a fourth transmission to the receiver at a third data transmission rate that is different from both the first data transmission rate and the second data transmission rate, wherein the fourth transmission includes the first transmission block
20 portion.

4. (original) The method of claim 3, further comprising, when the receiver does not successfully decode a combination of the first transmission, the second transmission, the third

transmission, and the fourth transmission in a fourth decoding, transmitting a fifth transmission to the receiver at the third data transmission rate, wherein the fifth transmission includes the second transmission block.

5 5. (original) The method of claim 4, wherein:
the second data transmission rate is less than the first data transmission rate; and
the third data transmission rate is less than the second data transmission rate.

10 6. (original) The method of claim 1, wherein:
the transmitter is a base station; and
the receiver is a user terminal.

15 7. (original) The method of claim 1, wherein:
the transmitter is a user terminal; and
the receiver is a base station.

8-14 (cancelled)

15-19 (cancelled)

20

20-24 (cancelled)

25-29 (cancelled)

30-35 (cancelled)

- 5 36. (original) A base station that acts as a transmitter to wirelessly transmit a data packet on a variable rate channel to a user terminal acting as a receiver, the base station comprising:
- an antenna;
- a Radio Frequency unit coupled to the antenna; and
- at least one digital processor coupled to the Radio Frequency unit that executes software
- 10 instructions causing the base station to:
- transmit a first transmission block portion and a second transmission block portion to the receiver in a first transmission at a first data transmission rate; and
- when the receiver does not successfully decode the first transmission in a first decoding, transmit a second transmission to the receiver at a second data transmission rate different from the
- 15 first data transmission rate, wherein the second transmission includes the first transmission block portion.

37 (cancelled)

20 38. (cancelled)

39-41 (cancelled)

42. (original) A plurality of software instructions stored on a media that, upon

execution by a base station, cause the base station to act as a transmitter to wirelessly transmit a data packet on a variable rate channel to a user terminal acting as a receiver, the plurality of software instructions comprising:

a set of instructions executed by the base station that cause the base station to transmit a first transmission block portion and a second transmission block portion to the receiver in a first transmission at a first data transmission rate; and

a set of instructions executed by the base station that cause the base station to, when the receiver does not successfully decode the first transmission in a first decoding, transmit a second transmission to the receiver at a second data transmission rate different from the first data transmission rate, wherein the second transmission includes the first transmission block portion.

43. (cancelled)

44. (cancelled)

45-47 (cancelled)

48. (new) A method of operating a wireless transmitter to wirelessly transmit a data packet to a wireless receiver, the method comprising:

turbo coding a plurality of data bits of the data packet to produce a plurality of parity bits, wherein the plurality of data bits and the plurality of parity bits comprise an encoder packet;

5 forming a first sub packet from the encoder packet as a first transmission, the first sub packet including the data bits and a first set of the parity bits, and the first sub packet having a first coding rate;

transmitting the first transmission to the receiver at a first bit rate;

10 receiving an indication from the receiver that the first transmission was not successfully decoded; and

forming a second sub packet from the encoder packet as a second transmission, the second sub packet having a second set of parity bits that are different than the first set of parity bits, and the second sub packet having a second coding rate;

15 transmitting the second transmission to the receiver at a second bit rate that differs from the first bit rate;

receiving an indication from the receiver that the first transmission and the second transmission were not successfully decoded;

20 forming a third sub packet from the encoder packet as a third transmission, the third sub packet having a third set of parity bits that are different than the first set of parity bits and the second set of parity bits, and the third sub packet having a third coding rate; and

transmitting the third transmission to the receiver at a third bit rate that differs from at least the first bit rate.

49. (new) The method of claim 48, further comprising:

receiving an indication from the receiver that the first transmission, the second transmission, and the third transmission were not successfully decoded;

5 forming a fourth sub packet from the encoder packet as a fourth transmission, the fourth sub packet having a fourth set of parity bits that are different than the first set of parity bits, the second set of parity bits, and the third set of parity bits, and the fourth sub packet having a fourth coding rate; and

transmitting the fourth transmission to the receiver at a fourth bit rate that differs from at least the first bit rate.

10

50. (new) The method of claim 48, wherein the first coding rate, the second coding rate, and the third coding rate are the same coding rate.

15 51. (new) The method of claim 48, wherein the second coding rate and the third coding rate are less than the first coding rate.

52. (new) The method of claim 48, wherein the second bit rate and the third bit rate are less than the first bit rate.

20 53. (new) The method of claim 48, further comprising:
the receiver soft combining the first transmission with the second transmission and attempting to decode a combined result;

the receiver soft combining the first transmission, the second transmission, and the third transmission and attempting to decode a combined result.

54. (new) A method of operating a wireless transmitter to wirelessly transmit a data packet to a wireless receiver, the method comprising:

turbo coding a plurality of data bits of the data packet to produce a plurality of parity bits, wherein the plurality of data bits and the plurality of parity bits comprise an encoder packet;

5 forming a first sub packet from the encoder packet as a first transmission, the first sub packet including the plurality of data bits and a first set of the parity bits and having a first coding rate;

transmitting the first transmission to the receiver at a first bit rate;

10 receiving an indication from the receiver that the first transmission was not successfully decoded; and

forming a second sub packet from the encoder packet as a second transmission, the second sub packet including at least some of the plurality of data bits and a second set of parity bits that are different than the first set of parity bits, the second transmission having a second coding rate;

15 transmitting the second transmission to the receiver at a second bit rate that is less than the first bit rate;

receiving an indication from the receiver that the first transmission and the second transmission were not successfully decoded;

20 forming a third sub packet from the encoder packet as a third transmission, the third sub packet including at least some of the plurality of data bits and a third set of parity bits that are different than the first set of parity bits and the second set of parity bits, the third transmission having a third coding rate;

transmitting the third transmission to the receiver at a third bit rate that is less than the first bit rate.

25 receiving an indication from the receiver that the first transmission, the second transmission, and the third transmission were not successfully decoded;

forming a fourth sub packet from the encoder packet as a fourth transmission, the fourth sub packet including at least some of the plurality of data bits and a fourth set of parity bits that are different than the first set of parity bits, the second set of parity bits, and the third set of parity bits, the fourth sub packet having a fourth coding rate; and

30 transmitting the fourth transmission to the receiver at a fourth bit rate that is less than the first bit rate.

55. (new) The method of claim 54, wherein the first coding rate, the second coding rate, the third coding rate, and the fourth coding rate are the same coding rate.

56. (new) The method of claim 54, wherein the second coding rate, the third coding rate, and the fourth coding rate are less than the first coding rate.

57. (new) The method of claim 54, further comprising:

the receiver soft combining the first transmission with the second transmission and attempting to decode a combined result;

10 the receiver soft combining the first transmission, the second transmission, and the third transmission and attempting to decode a combined result.